AMENDMENTS TO THE CLAIMS

Claims 1-6, 10-15, 17-25, 28-36, 39-44, 48-53, 56-60, and 63-65 are currently amended. Claims 9 and 47 are canceled. All other claims are original.

1. (Currently Amended) An information extracting apparatus for extracting designated information from a document group having a hypertext structure in which documents are mutually related by link information, comprising:

a start point address designating unit which designates an address of ~~the~~ a target document serving as a start point ~~where said~~ for information ~~is~~ to be extracted; ~~and~~

~~an extracting unit which extracts said information from the target document designated by said start point designating unit and, if said information could not be extracted from said target document, extracts said information from a related document of said target document on the basis of the address of said document.~~

a category designating unit which designates a category of the information to be extracted;

a category layer specifying unit in which the category of the information to be extracted is expressed by a layer structure;

an extracting unit which:

extracts the information corresponding to said category from the target document designated by said start point address designating unit and, if the information corresponding to said category could not be extracted from said target document,

extracts said information from a related document of said target document on the basis of the address of said target document; and

in the case where only an extraction result of a lower layer in said layer structure exists and an extraction result of an upper layer is missing as a result of the extraction of the information corresponding to the category from the target document designated by said start point address designating unit, extracts a character string of a layer which is higher than that of the extraction result of said lower layer from the related document of said target document.

2. (Currently Amended) The apparatus according to claim 1, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

3. (Currently Amended) The apparatus according to claim 1, further comprising:

a maximum link depth designating unit which designates a maximum link depth; and

~~an~~ wherein the extracting unit ~~which~~, in the case where the information could not be extracted from the target document, recursively executes a process for extracting the information from the related document of said document in a range of said designated maximum link depth.

4. (Currently Amended) The apparatus according to claim 3, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

5. (Currently Amended) The apparatus according to claim 3, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ executes the information extracting process in order of the document in which a value of the link depth is ~~small~~ 3 or fewer.

6. (Currently Amended) The apparatus according to claim 5, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

7. (Original) The apparatus according to claim 1, wherein said related document includes at least one of a link destination document, a link source document, and an upper document of the target document.

8. (Original) The apparatus according to claim 7, wherein said upper document is at least either a document of a specific name existing in a one-upper directory of the target document or a link source document existing in the one-upper directory.

9. (Canceled)

10. (Currently Amended) The apparatus according to claim 1~~9~~, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

11. (Currently Amended) The apparatus according to claim 1~~9~~, further comprising:

a maximum link depth designating unit which designates a maximum link depth; and

~~an~~ wherein the extracting unit ~~which~~, in the case where the information could not be extracted from the target document, recursively executes a process for extracting the information from the related document of said document in a range of said designated maximum link depth.

12. (Currently Amended) The apparatus according to claim 11, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

13. (Currently Amended) The apparatus according to claim 11, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ executes the information extracting process in order of the document in which a value of the link depth is ~~small~~ 3 or fewer.

14. (Currently Amended) The apparatus according to claim 13, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

15. (Currently Amended) The apparatus according to claim ~~19~~, wherein said related document includes at least one of a link destination document, a link source document, and an upper document of the target document.

16. (Original) The apparatus according to claim 15, wherein said upper document is at least either a document of a specific name existing in a one-upper directory of the target document or a link source document existing in the one-upper directory.

17. (Currently Amended) The apparatus according to claim ~~19~~, further comprising:

~~a category layer specifying unit in which the category of the information to be extracted is expressed by a layer structure;~~

~~an extracting unit which, in the case where only an extraction result of a lower layer in said layer structure exists and an extraction result of an upper layer is missing as a result of the extraction of the information corresponding to the category from the target document designated by said start point address designating unit, extracts a character string of a layer which is higher than that of the extraction result of said lower layer from the related document of said target document; and~~

a processing unit which outputs a character string, as an extraction result, obtained by synthesizing the extraction result of said lower layer and the extraction result of said upper layer.

18. (Currently Amended) The apparatus according to claim 17, ~~further comprising:~~

~~a~~ wherein the processing unit ~~which~~ has a predetermined synthesizing rule in the case of synthesizing a plurality of character strings expressed by the layer structure and forms a character string of a processing result in accordance with said synthesizing rule.

19. (Currently Amended) The apparatus according to claim 17, ~~further comprising:~~

~~a~~ wherein the processing unit ~~which~~ forms the character string of the processing result by coupling a plurality of character strings in order from the extraction result of the upper layer to the extraction result of the lower layer on the basis of the layer structure.

20. (Currently Amended) The apparatus according to claim 19~~, further comprising:~~

~~a~~ wherein the processing unit ~~which~~ has a predetermined synthesizing rule in the case of synthesizing a plurality of character strings expressed by the layer structure and forms a character string of a processing result in accordance with said synthesizing rule.

21. (Currently Amended) The apparatus according to claim 17, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

22. (Currently Amended) The apparatus according to claim 17, further comprising:

a maximum link depth designating unit which designates a maximum link depth; and

~~an~~ wherein the extracting unit ~~which~~, in the case where the information could not be extracted from the target document, recursively executes a process for extracting the information from the related document of said document in a range of said designated maximum link depth.

23. (Currently Amended) The apparatus according to claim 22, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

24. (Currently Amended) The apparatus according to claim 22, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ executes the information extracting process in order of the document in which a value of the link depth is ~~small~~ 3 or fewer.

25. (Currently Amended) The apparatus according to claim 24, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

26. (Original) The apparatus according to claim 17, wherein said related document includes at least one of a link destination document, a link source document, and an upper document of the target document.

27. (Original) The apparatus according to claim 26, wherein said upper document is at least either a document of a specific name existing in a one-upper directory of the target document or a link source document existing in the one-upper directory.

28. (Currently Amended) The apparatus according to claim 17, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~, in the case where the extraction result is separated into a plurality of character strings of the extraction result of the lower layer and the extraction result of the upper layer in said layer structure as a result of the extraction of the information corresponding to the category from the target document designated by said start point address designating unit, outputs said plurality of character strings as an extraction result of the lower layer and an extraction result of the upper layer.

29. (Currently Amended) The apparatus according to claim 28, ~~further comprising:~~

~~a~~ wherein the processing unit ~~which~~ has a predetermined synthesizing rule in the case of synthesizing a plurality of character strings expressed by the layer structure and forms a character string of a processing result in accordance with said synthesizing rule.

30. (Currently Amended) The apparatus according to claim 28, ~~further comprising:~~

~~a~~ wherein the processing unit ~~which~~ forms the character string of the processing result by coupling a plurality of character strings in order from the extraction result of the upper layer to the extraction result of the lower layer on the basis of the layer structure.

31. (Currently Amended) The apparatus according to claim 30, ~~further comprising:~~

~~a~~ wherein the processing unit ~~which~~ has a predetermined synthesizing rule in the case of synthesizing a plurality of character strings expressed by the layer structure and forms a character string of a processing result in accordance with said synthesizing rule.

32. (Currently Amended) The apparatus according to claim 28, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

33. (Currently Amended) The apparatus according to claim 28, further comprising:

a maximum link depth designating unit which designates a maximum link depth; and

~~an~~ wherein the extracting unit ~~which~~, in the case where the information could not be extracted from the target document, recursively executes a process for extracting the information from the related document of said document in a range of said designated maximum link depth.

34. (Currently Amendedl) The apparatus according to claim 33, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

35. (Currently Amended) The apparatus according to claim 33, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ executes the information extracting process in order of the document in which a value of the link depth is ~~small~~ 3 or fewer.

36. (Currently Amended) The apparatus according to claim 35, ~~further comprising:~~

~~an~~ wherein the extracting unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

37. (Original) The apparatus according to claim 28, wherein said related document includes at least one of a link destination document, a link source document, and an upper document of the target document.

38. (Original) The apparatus according to claim 37, wherein said upper document is at least either a document of a specific name existing in a one-upper directory of the target document or a link source document existing in the one-upper directory.

39. (Currently Amended) An information extracting apparatus for extracting designated information from a document group having a hypertext structure in which documents are mutually related by link information, comprising:

an extracting unit which extracts target information from said document group and, in the case where addition or updating of a document occurs for said document group, executes an extracting process to which such addition or updating is reflected each time said addition or updating occurs, and outputs an extraction result including said target information and its document address;

an extraction result storing unit which stores the extraction result from said extracting unit as extraction result information;

a start point address designating unit which designates an address of a target document serving as a start point where said designated information is extracted; ~~and~~

a category designating unit which designates a category of the information to be extracted;

a category layer specifying unit in which the category of the information to be extracted is expressed by a layer structure; and

a searching unit which:

extracts information from the target document of the document address designated by said start point address designating unit and its related document with reference to the extraction result information in said extraction result storing unit;

extracts the information belonging to the category designated by said category designating unit; and

in the case where an extraction result of an upper layer is missing only in an extraction result of a lower layer in said layer structure as a result of the extraction of the information corresponding to the category from the target document designated by said start point address designating unit, extracts a character string of a layer which is higher than that of the extraction result of said lower layer from the related document of said target document.

40. (Currently Amended) The apparatus according to claim 39, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

41. (Currently Amended) The apparatus according to claim 39, further comprising:

a maximum link depth designating unit which designates a maximum link depth; and

~~a~~ wherein the searching unit ~~which~~, in the case where the information could not be extracted from the target document, recursively executes a process for extracting the information from the related document of said document in a range of said designated maximum link depth.

42. (Currently Amended) The apparatus according to claim 41, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

43. (Currently Amended) The apparatus according to claim 41, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ executes the information extracting process in order of the document in which a value of the link depth is ~~small~~ 3 or fewer.

44. (Currently Amended) The apparatus according to claim 43, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

45. (Original) The apparatus according to claim 39, wherein said related document includes at least one of a link destination document, a link source document, and an upper document of the target document.

46. (Original) The apparatus according to claim 45, wherein said upper document is at least either a document of a specific name existing in a one-upper directory of the target document or a link source document existing in the one-upper directory.

47. (Canceled)

48. (Currently Amended) The apparatus according to claim 3947, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

49. (Currently Amended) The apparatus according to claim 3947, further comprising:

a maximum link depth designating unit which designates a maximum link depth; and

~~a~~ wherein the searching unit ~~which~~, in the case where the information could not be extracted from the target document, recursively executes a process for extracting the information from the related document of said document in a range of said designated maximum link depth.

50. (Currently Amended) The apparatus according to claim 49, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

51. (Currently Amended) The apparatus according to claim 49, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ the information extracting process in order of the document in which a value of the link depth is ~~small~~ 3 or fewer.

52. (Currently Amended) The apparatus according to claim 51, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

53. (Currently Amended) The apparatus according to claim 3947, wherein said related document includes at least one of a link destination document, a link source document, and an upper document of the target document.

54. (Original) The apparatus according to claim 53, wherein said upper document is at least either a document of a specific name existing in a one-upper directory of the target document or a link source document existing in the one-upper directory.

55. (Currently Amended) The apparatus according to claim 3947, ~~further comprising~~ wherein:

~~a category layer specifying unit in which the category of the information to be extracted is expressed by a layer structure; and~~

~~a~~ the searching unit ~~which, in the case where an extraction result of an upper layer is missing only in an extraction result of a lower layer in said layer structure as a result of the extraction of the information corresponding to the category from the target document designated by said start point address designating unit, extracts a character string of a layer which is higher than that of the extraction result of said lower layer from the related document of said target document, and~~ outputs a character string, as an extraction result, obtained by synthesizing the extraction result of said lower layer and the extraction result of said upper layer.

56. (Currently Amended) The apparatus according to claim 55, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

57. (Currently Amended) The apparatus according to claim 55, further comprising:

a maximum link depth designating unit which designates a maximum link depth; and

~~a~~ wherein the searching unit ~~which~~, in the case where the information could not be extracted from the target document, recursively executes a process for extracting the information from the related document of said document in a range of said designated maximum link depth.

58. (Currently Amended) The apparatus according to claim 57, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

59. (Currently Amended) The apparatus according to claim 57, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ executes the information extracting process in order of the document in which a value of the link depth is ~~small~~ 3 or fewer.

60. (Currently Amended) The apparatus according to claim 59, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ discriminates an internal link and an external link on the basis of the document address of the related document and excludes the documents of the external link from the targets of the information extraction.

61. (Original) The apparatus according to claim 55, wherein said related document includes at least one of a link destination document, a link source document, and an upper document of the target document.

62. (Original) The apparatus according to claim 61, wherein said upper document is at least either a document of a specific name existing in a one-upper directory of the target document or a link source document existing in the one-upper directory.

63. (Currently Amended) The apparatus according to claim 55, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ has a predetermined synthesizing rule in the case of synthesizing a plurality of character strings expressed by the layer structure and forms a character string of a processing result in accordance with said synthesizing rule.

64. (Currently Amended) The apparatus according to claim 55, ~~further comprising:~~

~~a~~ wherein the searching unit ~~which~~ forms a character string of a processing result by coupling a plurality of character strings in order from the extraction result of the upper layer to the extraction result of the lower layer on the basis of the layer structure.

65. (Currently Amended) The apparatus according to claim 64, ~~further comprising~~:

~~a~~ wherein the searching unit ~~which~~ has a predetermined synthesizing rule in the case of synthesizing a plurality of character strings expressed by the layer structure and forms a character string of a processing result in accordance with said synthesizing rule.